Event

MPTS IJET
IR 4290
T-45

Mission

NATOPS INSTRUMENT RATING
CHECK FLIGHT
1.6 HOURS/X

ORM

IR 4290

- **OPERATIONAL REQUIREMENTS / LIMITATIONS**
  - **CREW REST/ CREW DAY / WORK WEEK**
  - **WARM-UP ELIGIBILITY**
  - **PREVIOUS FLIGHT COMPLETE?**
  - **IP CURRENCY**
  - **READ AND INITIAL**

- **HUMAN FACTORS**
  - **LIFE STRESSORS / EXTERNAL FACTORS/ PERSONAL PROBLEMS**
  - **MEDICAL STATUS**
    - **CREW DAY**
    - **CREW REST**
    - **NOURISHMENT**
    - **HYDRATION**

- **HAZARDS AND CONTROLS**
  - **ROUTINE**
  - **WEATHER**
    - **CURRENT OBSERVATIONS AND FORECASTS**
    - **CROSSWINDS**
    - **FUEL CONSIDERATIONS**

TTO

IR 4290

- **WHO WILL CALL A TTO?**

- **WHAT SITUATIONS WILL THE TTO BE CALLED?**
  - **SAFETY**
  - **CONFUSION**
  - **MISUNDERSTANDING**

- **IP RESPONSIBILITIES**
  - **RECOGNIZE THE NEED FOR A TTO**
  - **EXPLANATION / INSTRUCTION AS NECESSARY**
  - **DOCUMENTATION ON ATF**

- **WHEN AND HOW WILL TRAINING RESUME?**

SSR/DISCUSS ITEMS

IR 4290

- **SPECIAL SYLLABUS REQUIRMENTS:**
  - **NONE**

- **PREREQUISITES:**
  - **IR 4102**

- **DISCUSS ITEMS:**
  - **NATOPS/SOP/EP QOD**
  - **LOST COMMUNICATIONS**
  - **IN-FLT EMERGENCIES**
  - **GENERAL INSTRUMENT PROCEDURES AND KNOWLEDGE**

SYLLABUS NOTES

IR 4290

A. EVENT WILL BE FLOWN FROM THE REAR COCKPIT WITH HOOD.

B. NO MORE THAN 60 DAYS SHALL ELAPSE BETWEEN COMPLETION OF THE IR 1103 EXAM AND SUCCESSFUL COMPLETION OF IR 4290 OR THE EXAM SHALL BE RETAKEN.

C. SUCCESSFUL COMPLETION OF THIS BLOCK WILL WARRANT ISSUANCE OF A USN STANDARD NATOPS INSTRUMENT RATING. IF THIS NATOPS INSTRUMENT RATING WILL EXPIRE WITHIN 120 DAYS OF COMLETION OF THE T-45 TS CURRICULUM, THE INSTRUMENT RATING PROCESS SHALL BE UPDATED PRIOR TO DETACHING.

D. IT IS HIGHLY RECOMMENDED THAT AN/IR FLTS BE CONDUCTED OUTSIDE THE LOCAL FLYING AREAS TO THE MAXIMUM EXTENT POSSIBLE.

E. TWO OUT-AND-IN FLTS (OUTSIDE THE LOCAL AREA) ARE REQUIRED IN THE AN/IR SYLLABUS PRIOR TO IR 4290. A CROSS-COUNTRY WITH AT LEAST FOUR LEGS MAY BE SUBSTITUTED FOR THIS REQUIREMENT.

SYLLABUS NOTES

IR 4290

F. STUDENTS SHALL CONTACT THEIR IP PRIOR TO BRIEF TO DETERMINE THE ROUTE OF FLT TO PLAN.

G. STUDENTS SHALL BRING A COPY OF A COMPLETED DD-175 AND JET LOG TO THE BRIEF FOR IP USE DURING THE FLT.

H. STUDENTS SHALL BE PREPARED TO DISCUSS IN DETAIL ANY AND ALL ASPECTS OF INSTRUMENT FLT IN THE BRIEF. THES INCLUDE (BUT ARE NOT LIMITED TO) PROCEDURES; RULES GOVERNING INSTRUMENT FLT FROM FAR'S, NATOPS, OR THE AIM; INFORMATION CONTAINED IN DOD FLIP PUBLICATIONS; AND EMERGENCY PROCEDURES.

I. DURING THIS BLOCK, STUDENTS MUST FLY AT LEAST THE APPROACHES LISTED BELOW:

- **PRECISION APPROACH 1 FULL PANEL/1 PARTIAL PANEL**
- **NON-PRECISION APPROACH 1**

ADMIN (CARD)

IR 4290

- **A/C – ATC C/S – CREW**
- **BRIEF / WALK / TAKEOFF / LAND TIMES**
- **ATC CLEARANCE / DD-175**
- **FUEL PLAN/LADDER**
- **LINE / T/O / ABORT / RPM**
- **COMM PLAN**
- **NAV PLAN**

ADMIN

IR 4290

- **LAUNCH**
  - **WEATHER / NOTAMS / TFR / BASH**
  - **PREFLIGHT / START / TAXI**
  - **ITO**
  - **SWAPPING OF CONTROLS**
  - **ENROUTE PROCEDURES**
  - **RADALT USAGE**

- **RTB**
  - **RECOVERY**
  - **DIVERTS**

CONDUCT

IR 4290

- **TIMS RESUME REVIEW**

- **PRACTICE:**
  - **CHECKLISTS/GROUND OPS**
  - **IFR CLEARANCES**
  - **TAKEOFF/DEPARTURE/FLIGHT ADMIN**
  - **INSTRUMENT COMM**
  - **ENROUTE NAVIGATION**
  - **POINT-TO-POINT NAVIGATION**
  - **ROUTE/DESTINATION CHANGE**
  - **HOLDING**
  - **DESCENT/FIELD ENTRY**
  - **STAR**
  - **PRECISION APPROACH**

CONDUCT

IR 4290

- **PRACTICE CONTINUED:**
  - **NON-PRECISION APPROACH**
  - **PARTIAL PANEL APPROACH**
  - **EMERGENCY INSTRUMENT APPROACH**
  - **NO-GYRO GCA**
  - **MISSED APPROACH**
  - **PARTIAL PANEL MISSED APPROACH**

DID YOU KNOW?

•IF VISUAL REFERENCE IS LOST WHILE CIRCLING TO LAND FROM AN INST APPR, THE MAP SPECIFIED FOR THE PARTICULAR PROCEDURE MUST BE FOLLOWED. TO BECOME ESTABLISHED ON THE PRESCRIBED MAP COURSE,THE PILOT SHOULD MAKE AN INITIAL CLIMBING TURN TOWARD THE LANDING RUNWAY AND CONTINUE THE TURN UNTIL ESTABLISHED ON THE MAP COURSE.

•THE DESCENT RATE IN FPM REQUIRED TO MAINTAIN YOUR 3 DEG GLIDE SLOPE IS ROUGHLY FIVE TIMES YOUR GROUND SPEED IN KNOTS.

•ATC MAY ISSUE “HOLD FOR RELEASE” INSTRUCTIONS IN A CLEARANCE TO DELAY AN AIRCRAFT’S DEPARTURE FOR TRAFFIC MANAGEMENT REASONS.

IR 4290

BLOCK MIF

CTS REF	MANEUVER	IR4290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	4+
4	Basic Airwork	4+
5	Mission Planning/Briefing/ Debriefing	4+
6	Communications	4+
7	Ground Operations	4+
8	Flight Admin	4+
10	Takeoff	4+
11	Departure	4+
12	Enroute Navigation	4+
12	Point-to-Point Navigation	4+
18	Route/Destination Change	3
15	Holding	4
13	Descent/Field Entry	4+
12	STAR	4
17	Precision Approach	4+
18	Non-Precision Approach	4+
17 18 5	Partial Panel Approach	4+
21	Emergency Instrument Approach	4+
17	No-Gyro GCA	4+
20	Missed Approach	4+
20 5	Partial Panel Missed Approach	4+

Emergencies

IR 4290

- **AIRCRAFT FALLOUT**
- **CLEAR ENGINE PROCEDURE**
- **ABORTED TAKEOFF**
- **RWY DEP / LOSS OF DIRECTIONAL CONTROL**
- **SYSTEM FAILURES/ EPs / CRM**
- **BIRD STRIKE/ MIDAIR**
- **RADIO/ ICS FAILURE**
- **LOSS OF NAVAIDS / LOST PLANE**
- **INADVERTENT IMC / LOST SIGHT / LCLS**
- **DISORIENTATION / VERTIGO**
- **HYPOXIA**
- **EJECTION (HIGH / LOW / GROUND)**
- **SAR / ON SCENE COMMANDER**
- **DIVERT(S) / BINGO FUEL TO DIVERT**

STANDARD DEBRIEFING FORMAT

IR 4290

- THE FLIGHT LEAD OR PILOT-IN-COMMAND IS RESPONSIBLE FOR ENSURING ALL FLIGHT OR CREWMEMBERS ARE THOUROUGHLY DEBRIEFED ON THE CONDUCT OF THE MISSION UTILIZING THE "S-P-B-E-MS-LL" FORMAT OUTLINED BELOW.

I. SAFETY
II. PLANNING
III. BRIEF
IV. EXECUTION
V. MISSION SUCCESS
VI. LESSONS LEARNED